

Human Performance Technology: Designing Practical Interventions for the HIV/AIDS Caregivers and Activists in Africa

Abstract: This paper describes the process of application of the Human Performance Technology (HPT) model and concepts to design and develop instructional and non-instructional interventions for the HIV/AIDS caregivers and activists in Africa to help them support the children orphaned by AIDS. The paper further discusses the instructor's and students' perspectives related to the role of HPT and its implications on the practice of Instructional Design and Technology in the light of current global issue of HIV/AIDS.

Introduction

Planet Earth is currently under peril is what we hear and see in every day news media; with several major global changes that have occurred in the last two decades with global warming, environmental depletion of natural resources, and the epidemic of HIV/AIDS. The question is how each one of us can play a key role in providing solutions to these issues, which are impacting mankind today and will continue to have unprecedented impact to the future generation. This paper describes one such effort by Master's students in the Instructional Design and Technology (IDT) program at a Minority Urban University in Los Angeles, to study and understand the role of IDT and its practical applications to solving problems related to HIV/AIDS in Africa.

The current trends in e-learning, web 2.0 technologies, satellites and grid-technology, and mobile and wireless technologies have helped in creating a distributed learning environment and communities of practice which have substantially broadened the scope and practice of the field of Instructional Design and Technology (IDT). Traditionally IDT has focused on designing and developing training and instructional solutions to bring about behavioral changes and learning outcomes; however, in the last decade IDT focus seems to have shifted from training to human performance (Conn, 2003). With the emphasis on human capital and organizational results in different settings like corporate, higher education, pre-kindergarten to high school (Pre-K-12), non-profit organizations, healthcare, defense, and government, the role of the Instructional Designer has significantly changed. This has led to many instructional technology and educational technology programs at universities in the United States, Canada, Europe, Middle East, Africa, South America, Australia, New Zealand and other developing countries to incorporate HPT competencies within their curriculum. Furthermore, the growing importance of HPT is also evident in the efforts of the organizations like American Society for Training and Development (ASTD) and The International Society for Performance Improvement (ISPI) which are involved in providing certification in Performance Technology [Certified Performance Technology (CPT)] programs that have produced over one thousand CPTs worldwide (Pershing, 2006).

The focus of this paper is on the process of design, development and implementation of the HPT competencies within the Instructional Technology (IT) program and its practical applications to designing and developing interventions for the HIV/AIDS caregivers and activists in Africa. The paper further focuses on the instructor's and students' perspectives related to the future of HPT, and how knowledge and skills related to HPT competencies will impact their practice as Instructional Designers in the global workforce in solving global issues. The paper concludes with ideas and challenges associated with designing interventions and at the same time integrating HPT in a traditional IDT program.

Overview of Human Performance Technology

What is Human Performance Technology?

According to ISPI, "HPT is a systematic approach to improving productivity and competencies, and it uses a set of methods and procedures and a strategy for solving problems. More specific, it is a process of selection, analysis, design, development, implementation, and evaluation of programs to most cost-effectively influence human behavior and accomplishment" (<http://www.ispi.org>). Although there are several other definitions of HPT, most of them have common consensus on the following attributes of HPT: (1) using a *systematic* approach to identify human performance problems and solutions, (2) grounded in *scientifically derived theories* and *empirical evidence*, (3) taking a *systemic* view of human performance gaps, (4) being open to all *means, methods, and media*

to implement both instructional and non-instructional solutions, and (5) focusing on *achievements* that both individual workers and organizations value (Conn, 2003; Pershing, 2006; Stolovitch & Keeps, 1992).

Human Performance Technology (HPT) vs. Instructional Design and Technology (IDT)

HPT, also known as Human Performance Improvement (HPI), emerged in the IDT literature in the late 1970s and early 1980s (Gentry & Csete, 1995; Gilbert, 1978; Reiser, 2002; Stolovitch & Keeps, 1999). Although there is a significant overlap between the HPT and IDT skills and competencies, HPT takes a stronger systemic approach to identifying problems and opportunities by investigating a wide range of system influences. HPT emphasizes both instructional and non-instructional interventions that are cost-effective and eliminate the cause of the problem or gap rather than focusing on providing a training course or other product.

This concept of non-instructional solutions (incentive systems, motivational programs, altering procedures etc) is novel to instructional designers (Huang, Matthys, Wu & Schaffer, 2004). Many practitioners believe that HPT has a significant impact on IDT with its stronger emphasis on analysis and systemic approach, thereby moving IDT from a focus on training to a focus on human performance and organizational results (Reiser 2002).

Instructional Environment (Master's Program at the Minority Urban University in Los Angeles)

The IDT program at the Urban University in Los Angeles provides two Masters options: (1) New Media Design and Production, and (2) Computer Education and Leadership. Although the programs have been originally written to prepare students for all areas currently the curriculum primarily focuses on preparing students for the Pre-Kindergarten-high school area. With the increasing need for human performance interventions in various settings like government, healthcare, businesses and other educational environment, there is a clear need for integrating HPT into the traditional IDT program.

The class was offered as a special topic *EDIT 594: Human Performance Technology*. All sixteen students taking the HPT class came from different work backgrounds like school teachers, community college professors, computer programmers, private business, and linguists. All students were novices in the area of HPT. Students were taking this class as one of their electives in the Instructional Technology program. The instructor had practical knowledge in working for a performance improvement company and conducting research in the area of HPT. However, this was only the second time the course was being taught at the University.

HPT Course Design, Development and Implementation

This section describes a collaborative design, development, and implementation of a Human Performance Technology (HPT) course within the Instructional Design and Technology (IDT) curriculum via a hybrid learning environment. The hybrid learning environment included collaborations via a blend of both online and face to face interactions. The following paragraphs describe the role of key players in the community of learners: the content experts, instructor and students in the course development and learning process. Students and instructor's perspectives and strategies used for creating an effective collaborative learning environment are also discussed in light of current trends in e-learning and Human Performance Technology.

Content Development

Course Objectives and Materials Used

The theoretical foundations and rationale for the HPT course was based on the dissertation study by Conn (2003), investigating how human performance technology competencies are integrated into the educational technology master's program across the United States of America (U.S.A). This study addressed several case studies of various IDT programs across USA, providing a framework and guidelines related to current HPT core competencies that were integrated in the IDT programs. The HPT course at the Urban University in Los Angeles also developed objectives and goals derived from ISPI's, ASTD and CPT standards.

The two textbooks used in the class were: (1) Handbook of Human Performance Technology: Principles, Practice and Potential edited by James A. Pershing (Third edition, 2006), and (2) Fundamentals of Performance Technology: A Guide to Improving People, Processes, and Performance (Second edition, 2004) by Van Tiem, Moseley, and Dessinger. The class syllabus allowed for a learning process that was student directed via several open-ended projects and activities. The class assignments included seminar presentations, writing papers, critiquing a training program, a webquest on CPT, case-studies, creating an HPT model at the beginning and at the end of the class, and a final culminating project for Africa. The primary goal of this class was to create a culminating project that would allow students to participate in a real life authentic project. In this case, a final culminating project was to apply the HPT competencies into designing interventions for the caregivers and activists in Africa.

The class structure was semi-structured with student-led seminars as the primary instructional strategy. The primary content of the class was designed and developed by students via their group seminar presentations. Since the students were novices, the seminar topics were assigned to the students by the instructor. However, students were given freedom to explore each of the topics and share their expertise and contribute multiple perspectives in class based on the real world examples. The topics were based on the ISPI's HPT model (ISPI, 2000). The topics included performance analysis, cause analysis, designing and implementing interventions, implementing change, evaluating interventions, and the future of HPT in the context of global issues. There were two experts (one in HPT and other a physician with expertise in HIV/AIDS) invited to the class via web conferencing to provide the class with a scaffolding for designing interventions related to HIV/AIDS issue in Africa.

Context of the HIV/AIDS issue in Africa (Mozambique)

The instructor of the HPT class visited Maputo, the capital of Mozambique, in summer of 2007. The goal of the visit was to volunteer and conduct a needs assessment within a community outside the city of Maputo which is inhabited by more than 6000 children orphaned by AIDS. These children are currently supported by a local NGO called *Reencontro* run by Catholic nuns. *Reencontro* operates with meager funding and resources. The size of the office is almost 6 by 6 feet and with only four staff people supporting 6,000 children. *Reencontro* is a Mozambican non-profit organization whose mission is to contribute towards alleviating the plight of HIV/AIDS by reducing the negative impact made by broken family structures. *Reencontro* uses strategies such as the promotion of better conditions of socio-economic-psychosocial, good health practice, and education to provide better overall living conditions for children who have lost one or both parental figures. The children, 1-17 year olds, live in the communities in their dilapidated houses. Most of the older children are responsible for raising their younger siblings as they all have lost their parents to AIDS. Some of the children themselves are HIV infected.

The women living in the community and teenagers have taken on the role of the caregivers and activists to provide help and support to all other families and children within the community. A video depicting the situation in this community will be shown at the conference contingent upon acceptance of this paper. Several onsite observations and interviews were conducted by the instructor which was tape recorded and analyzed to write a needs assessment and performance analysis report. Of the several needs revealed, some of the crucial needs were: support and help needed for the caregivers and activist who are facing challenges in providing care to the children in terms of sustaining themselves financially to provide food and drugs to the children, keeping records of the total number of children receiving food and drugs, the number infected with HIV, providing sex education to the youth group, and accessing help and resources from international organizations. With this background, the student in the HPT class got involved in applying their HPT competencies learned in this class toward designing interventions for the caregivers and activists.

Content Management

WebCT was used as course management tool. The course was taught over 11 weeks with approximately 3 hour face to face class time per week. Some of the assignments and projects were conducted virtually via WebCT chat, e-mail and discussion. The WebCT default interface was redesigned by the instructor to make it user friendly and accessible for the students. The WebCT included 11 weekly modules with detailed description of the weekly activities, classroom activities, resources, rubrics and seminar instructions and protocol for conducting the seminar. A discussion board was used to share ideas and thoughts on various issues related to HPT, class structure and seminar topics.

Several articles and research related to HPT and HIV/AIDS were posted on WebCT as resources for students. Some of the articles were contributed by students. Since the students were novices, scaffolding was provided to them for every assignment and seminar topics. Students posted their assignments and papers, seminar handouts, etc, on WebCT. Several communications and collaborations were conducted via WebCT e-mail, chat, in addition to the face-to-face, open-lab times in the classroom.

Course Implementation

During the first two weeks of the class, students were very skeptical about the relevance of HPT in their Master's program. Most of them were frustrated with the intense textbook readings. The first seminar was conducted by the students in the third week. The seminars were lead by a group of two or three students with the rest of the class involved in the discussions, asking questions and reflecting on the topic. Seminars were planned and delivered with a lot of planning and research related to the topic. Students wrote their own HPT case studies from real world problems related to e-learning or sometimes used cases from their research to engage their peers in intellectual discussions of an HPT related issue. Each seminar group took the responsibility of becoming an expert in their topic.

The class atmosphere slowly transformed once the seminars began. Student's were interacting, questioning, and leading discussions on HPT topics and extending it to the current issues like globalization, multiculturalism, out-sourcing, distributed learning, online blogs and practical problems related to the performance issues in the city of Los Angeles. This was the most enriching experience both for the students and the instructor with multiple perspectives on several issues shared and discussed in the class. The most interesting development as the class progressed was the transformation of the novice students into becoming experts and leading the HPT course. The instructor served as a facilitator and co-learner.

Role of HPT in the Practice of IDT and Future Implications

The HPT class (EDIT 594: Human Performance Technology) was taught at the University in spring 2008 quarter. The following is a preliminary report of content analysis of students' WebCT chats, discussions, classroom observations, written reports and feedback. The final quantitative and qualitative data will be reported in the proceedings as the data is being currently analyzed (the class will officially get over at the end of May 2008).

Students' Perspectives

The students contributed immensely to the HPT course curriculum and the class structure. The HPT class exposed them to the many facets of applying HPT and theories to solve human performance problems in a variety of settings. Some of the comments made by the students about the *HPT curriculum* are:

“I was amazed to find that there was a class that enabled others to systematically analyze, design, develop, implement, and evaluate how we as people perform tasks, skills, jobs, and just about anything else humans do; including how we relate to one another. This class has such widespread application and relevance that I'm at a loss to think of anything humans do that couldn't benefit from this type of systematic approach. Helping others to improve their performance is also one of the most gratifying experiences I can imagine. I am definitely considering going into this exciting field!”

“The processes by which Human Performance Technology, “HPT” is derived and applied are not only useful in the corporate world, but are also more than applicable in an educational setting. The HPT model can be used as an instructional tool as well for most curricular areas.”

“Human Performance Technology has the art of problem solving down to a science. The systematic approach used to bring solutions to organizations can be applied any where. What I like about this approach is that the employees are seen as an asset and not a liability. I know that I have only begun to scratch the surface of what HPT can do to increase efficiency, but now that I am aware, solving problems has taken on a whole new role.”

“This class has truly opened my eyes as so much is to be considered before one implements interventions. What a fantastic field to put so much weight on the importance of capitalizing on the strengths of the human component of an organization. This has always been my outlook, as no man is an island. Society has become

increasingly dehumanized, and it's so refreshing and hopeful to feel that in the world of business and academia, etc., it should be about improving conditions in and for the people that make up those particular landscapes."

Another student mentioned, "HPT is a new topic and is still growing and evolving, and I can apply this to many other areas of interest in education and applied linguistics. Furthermore, I liked your semi-structured scaffolding and I believe that this is where we all have to understand that we as learners have to learn and write independently in a Master's program. If we could all take one thing from this class, then I would really like to keep the deep philosophizing and theoretical thinking process going even after I leave the program. I would like this experience to be a life-long one for me."

"This course is what I refer to as people based. It teaches students to value the input and the views of the people who actually perform the work. HPT attempts to help people do their best by arming them with knowledge and tools they need to be effective and successful in their work. This course has made all class members aware of the absolute necessity to be people oriented and aware of the employee's needs and the needs of the people who are HPT practitioners. In addition, students have been provided with useful tools in the form of methods of problem analysis and recognition, problem resolution through intervention design and implementation, while having to deal with the natural reluctance or fear of change in any organization. The course has also made all of the class members aware of the very subtle ways change can happen and conversely, the very broad areas that must be considered before implementing a change. The single most important item that was presented to the class was to only make a change if it resulted in a positive change and did not under any circumstance make conditions worse."

"It's interesting that while learning about best practices that ensure best performances and results in this HPT course, my elementary school is going through a few of its own changes. A special assignment was created this year so that each elementary school would have a teacher whose goal was strictly to apply interventions in reading for struggling students. With empirical evidence to back her success this year, this teacher now hopes for all grade levels to implement a tiered approach to teaching reading for the coming year. This would require a lot more planning and preparation than time allows at this point. Resistance is high and underground, negative communication amongst teachers is rampant. Without teachers seeing visible promotion from leadership regarding this initiative, not to mention the lack of a school culture of trust, this enthusiastic intervention teacher is swimming upstream. ... Now with my new knowledge of what HPT entails, I can see clearly what is happening at my school and know that many of the steps necessary for effective and efficient change are missing. I believe that much of the academic world would be resistant to the process required by HPT because of unavailable money or time ... or simply lack of knowledge and understanding. This course has given me a whole new perspective to what brings about best practices, performance, and change. The question is ... Will leadership allow for this systematic process to occur in academia or will we continue to have angry, overworked teachers stabbing at change in the dark at an insufficient effectiveness rate? What a waste of time and energy for everyone. The HPT process needs to be made known – and adopted – in our schools! Though budget cuts and reality can thwart what is best, the HPT process still gives me hope for the future."

Meaningful communication and interactions also played a key role in building a learning community. According to some of the students, "This class has been very influential in shaping my currently malleable perception of Instructional Technology. I have enjoyed the class wide discussions that have been led by Dr. J. The discussion and reflections on readings and case studies were rich for me." Another student stated, "The most important thing that I think the class helps me a lot is to listen to different views from all of my classmates. Dr. J gives opportunity for every student to discuss their views in class, so each person has good feedback and interaction with everyone. I did not have enough teaching or life experience. With class discussion, I am absorbing a lot of things that I never understood before or I have not experienced before. This class not only helps me understand what HPT is and how to be a good HPT practitioner, but also gives me other knowledge that I can use in my life or in my future studies and work. I get more ideas and a variety of perspectives about HPT from classmates, not just from textbooks."

Student artifacts in the form of their research papers, seminar presentations and their own HPT models based on the current world events further provide their understanding of HPT and how the practice of HPT will evolve in the near future. Along with these artifacts, the interventions designed by students for the HIV/AIDS orphans caregivers and activists will be showcased at the conference presentation.

Instructor's Perspectives

The preliminary analysis of the pilot HPT class has provided empirical evidence which shows that the integration of HPT competencies are vital to any IDT program that would like to provide avenues for their

students to practice in a variety of settings. The student led seminars, with a semi-structured format, allowed the students to explore their own understanding of HPT and promote critical thinking and reflective inquiry. The HPT course at the University integrated a wide variety of HPT competencies like performance analysis, cause analysis, analyzing performance data, instructional and non-instructional interventions, evaluation, change theory and implementation skills, evaluation of results against organizational goals, cost/benefit analysis, and research design and implementation, electronic performance support systems, knowledge management, and above all systems thinking.

The HPT course is structured in such a way so that the products created by students actually live on in the real world, with the hope and goal of significant and positive impact for change. Designing and providing needed interventions for the Mozambique children adversely affected by HIV/AIDS is just the beginning of what students entering the field can do to make a difference in the world around them.

An enhancement that could be considered for this course would be to create a second section that would allow students to continue authentic, HPT-related projects by applying their new found competencies in solving performance problems. Although the pilot HPT course provides a solid foundation, it only scratches the surface. A second section would afford students the opportunity to grow deeper into this systematic approach to affecting change. The presenter of this paper welcomes ideas and suggestions to improve this class and any practical recommendations that will allow the IT program at the University to grow in the area of Human Performance Technology and connect it to solving global problems.

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